TENNESSEE
MORBIDITY STATISTICS
1986

Tennessee Department of Health and Environment
State Center for Health Statistics

STATE OF TENNESSEE

Hon. Ned McWherter, Governor

DEPARTMENT OF HEALTH AND ENVIRONMENT

James E. Word, Commissioner

This report contains morbidity statistics summarized in narrative form followed by detailed statistical tables. Data from the report may be used by Federal, State, and local officials who need comprehensive statistics relating to public health and by others who need extensive and comparative health information. Any additional needs for data or analyses should be directed to the Data Utilization Section, Center for Health Statistics. The office will make every attempt to comply with requests for data within the limitations of staff and resources.

Tennessee Department of Health and Environment
Center for Health Statistics
Data Utilization Section
C2-242 Cordell Hull Building
Nashville, Tennessee 37219-5402
Telephone: (615) 741-1954

Authorization No. 343488. Copies printed 400. This public document was promulgated at a cost of $2.17 per copy.

TENNESSEE MORBIDITY STATISTICS

1986

TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT

NASHVILLE, TENNESSEE

September 1987

TABLE OF CONTENTS

Page

List of Tables in Text iv

List of Figures in Text iv

List of Notifiable Diseases v

Introduction 1

Discussion of Certain Communicable Diseases:

Acquired Immunodeficiency Syndrome (AIDS) 2
Hepatitis, Viral 3
Influenza 6
Measles 7
Meningitis, Aseptic 8
Mumps 8
Rocky Mountain Spotted Fever(RMSF) 9
Sexually Transmitted Diseases (STD) 11
  Gonorrhea 11
  Syphilis 12
Tuberculosis 13

Summary Tables:

Table I. Reported Cases of Notifiable Diseases, Tennessee, 1977-1986 ... 14

Table II. Reported Cases of Notifiable Diseases, by Month Filed, Tennessee, 1986 15

Table III. Reported Cases of Selected Notifiable Diseases with Rates per 100,000 Population, by Race and Age, Tennessee, 1986 16

Table IV. Reported Cases of Notifiable Diseases for Counties of Tennessee, 1986 19

Table V. Reported Cases and Deaths from Selected Notifiable Diseases, Resident Data, Tennessee, 1984-1986 24

Appendices:

Appendix A Definitions of Terms 27

Appendix B Population Estimates by Race and Sex and by County and Race, Tennessee, 1986 28

LIST OF TABLES IN TEXT

Page

Table 1. Reported Cases of Hepatitis, Type A and Type B, with Rates per 100,000 Population, by Age, Tennessee, 1986.....4

Table 2. Reported Cases of Gonorrhea with Rates per 100,000 Population, by Race and Age, Tennessee, 1986.....11

Table 3. Reported Cases of Primary and Secondary Syphilis with Rates per 100,000 Population, by Race and Age, Tennessee, 1986.....12

Table 4. Reported Cases of Tuberculosis with Rates per 100,000 Population, by Race, Sex, and Age, Tennessee, 1986.....13

LIST OF FIGURES IN TEXT

Figure 1. Reported Cases of Acquired Immunodeficiency Syndrome (AIDS), Tennessee, 1982-1986.....2

Figure 2. Reported Cases of Hepatitis, Type A and Type B, per 100,000 Population, Tennessee, 1977-1986.....3

Figure 3. Reported Cases of Hepatitis, Type B, per 100,000 Population, by County, Tennessee, 1986.....5

Figure 4. Reported Cases of Influenza, by Month Filed, Tennessee, 1982-1986.....6

Figure 5. Reported Cases of Aseptic Meningitis, by Month Filed, Tennessee, 1986.....8

Figure 6. Reported Cases of Rocky Mountain Spotted Fever, by County, Tennessee, 1986.....10

LIST OF NOTIFIABLE DISEASES

January 1, 1986

Anthrax[1]

Botulism[1]

Brucellosis[1]

Cholera[1]

Congenital rubella syndrome

Diphtheria[1]

Disease outbreaks
- Foodborne[1]
- Related to industrial substances
- Waterborne[1]
- Other outbreaks

Encephalitis[1]
- Arthropod borne[1]
- Other infectious
- Post-infectious
- Post-vaccinal

Gonorrhea[2]

Hepatitis, viral
- Type A (infectious)
- Type B (serum)
- Non-A, Non-B
- Unspecified

Influenza (number of cases)

Leprosy

Leptospirosis[1]

Malaria[1]

Measles[1]

Meningitis, aseptic

Meningococcal infection[1]

Mumps

Pertussis[1]

Plague[1]

Poliomyelitis, paralytic[1]

Psittacosis

Rabies in man[1]

Relapsing fever (louse-borne)[1]

Rocky Mountain spotted fever

Rubella

Salmonellosis
- Typhoid fever[1]
- Other forms

Shigellosis

Smallpox[1]

Syphilis[2]
- Primary
- Secondary
- Early latent
- Late latent
- Late
- Congenital

Tetanus

Trichiniasis

Tuberculosis

Tularemia

Typhus fever[1]
- Endemic
- Epidemic

Yellow fever[1]

[1] Immediate telephone reporting required.
[2] Confidential (opaque envelope) report required.

MORBIDITY STATISTICS - 1986
STATE OF TENNESSEE

INTRODUCTION

Tennessee began to officially tabulate statistics on the incidence of certain communicable diseases in 1925. Most reported diseases have shown periodic fluctuations with some diseases virtually eradicated, and others controlled so that they no longer present a public health problem. Other communicable diseases continue to occur, and their active surveillance is important for the understanding and control of those diseases which affect the public health. Certain communicable diseases that require reporting in Tennessee appear in the "List of Notifiable Diseases."

The data for this report are compiled from the communicable disease report cards received from private physicians, health departments, hospitals, primary care centers, and others (emergency care clinics, abortion clinics, correctional facilities, etc.) in Tennessee via local health departments and through interstate reciprocal notification of disease. All death certificates which list a reportable communicable disease as a cause of death are also checked and a report is obtained for any previously unreported case.

The major source of non-sexually transmitted disease reporting is by physicians. In 1986, physicians reported 20,892 cases of non-sexually transmitted disease, compared with 26,557 cases reported in 1985. However, only 769 (9.4 percent) of the 8,193 physicians practicing in Tennessee reported a case of non-sexually transmitted disease in 1986, compared with 593 (7.5 percent) of the 7,906 physicians in 1985. Of the 169 hospitals in Tennessee, 94 reported at least one case of a non-sexually transmitted disease in 1986 compared with 105 of the 173 hospitals in 1985.

Each week a report is transmitted from the State Department of Health and Environment to the Centers for Disease Control. There, comparable data submitted by all states are compiled in a weekly report for the Nation which is essential for monitoring the current concentration and movement of disease throughout the United States.

State population estimates of 4,809,345 for 1985 and 4,855,651 for 1986 were used in this report. These population estimates (prepared by the Department of Sociology, University of Tennessee) were used in the calculation of 1985 and 1986 rates shown in tables and figures of this publication.

In addition to a true difference in incidence of a disease among various groups and from year to year, there are a number of other factors that may influence the reported statistics. These include the availability of health and medical services, changes in diagnostic criteria, severity of the disease, and increase or decrease in case-finding programs, and of course, completeness of reporting by those charged with this responsibility. Knowledge of local conditions is advisable for interpretation of data for particular areas. In comparing reported cases by geographic areas, differences in size and composition of population should be taken into account as well as the factors mentioned above.

DISCUSSION OF CERTAIN COMMUNICABLE DISEASES

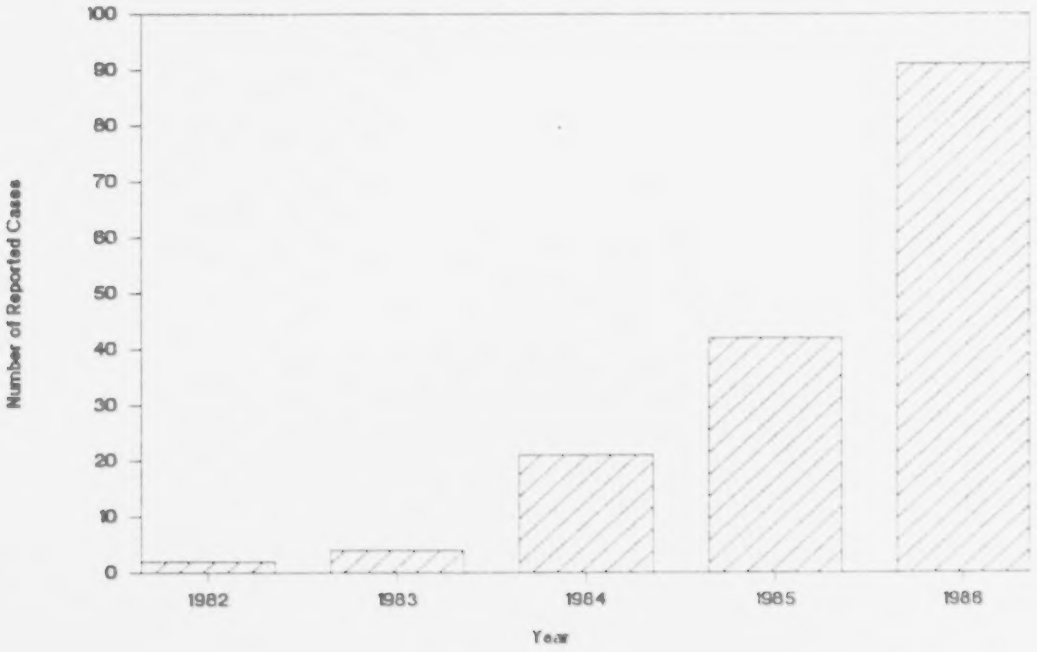
ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)

Acquired Immunodeficiency Syndrome, or AIDS, is a complex condition which destroys the body's natural immunity to diseases. AIDS is caused by the human immunodeficiency virus (HIV), but not everyone who carries the virus is expected to contract the fully developed and lethal AIDS. The disease was first reported in the United States in mid-1981 and Tennessee reported its first two cases in 1982.

The onset of AIDS is usually insidious with such nonspecific symptoms as chronic diarrhea, anorexia, weight loss, fever, and night sweats. These symptoms may progress until the body's weakened immune system allows the development of an opportunistic disease, such as Pneumocystis carinii pneumonia, or a type of cancer known as Kaposi's Sarcoma. There is no single test for diagnosing AIDS, although a test is available to detect the presence of antibodies to the AIDS virus.

AIDS can be transmitted through intimate sexual contact, contaminated needles, injection of blood or blood products from a contaminated person, or perinatally from an infected mother to her child. The risk of AIDS transmission through sexual contact is increased by having multiple sexual partners, either homosexual or heterosexual.

FIGURE 1. REPORTED CASES OF ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS), TENNESSEE, 1982-1986



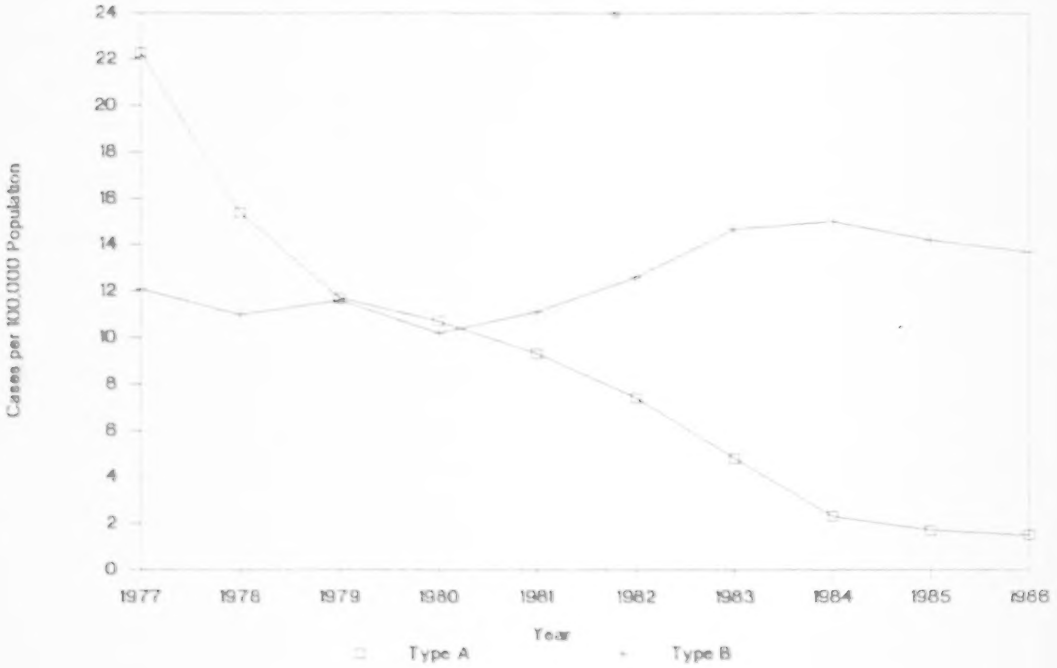
In 1982, the first AIDS cases in Tennessee were reported to the Department of Health and Environment. The 2 cases reported in 1982 were followed by 4 cases in 1983, 21 cases in 1984, 42 cases in 1985, and 91 cases in 1986, for a cumulative total through 1986 of 160 cases (Figure 1). The typical Tennessee AIDS patient for 1982-1986 was white (125 white, 35 other races), and male (154 male, 6 female). The age range of AIDS patients was from 5 to 64 years. The cumulative mortality (105 deaths or 65.6 percent) was comparable to national data.

In proportion to area population figures, the geographic distribution of cases was relatively even across the State with approximately one-third of the cases in each major geographic division (East, Middle, and West Tennessee).

HEPATITIS, VIRAL

In 1986, 847 cases of viral hepatitis were reported in Tennessee, for a rate of 17.4 per 100,000 population, a decrease of 3.6 percent from the 879 cases reported in 1985.

FIGURE 2. REPORTED CASES OF HEPATITIS, TYPE A AND TYPE B, PER 100,000 POPULATION, TENNESSEE, 1977-1986



The term "viral hepatitis" is generally used to designate diseases that are clinically quite similar but virologically and epidemiologically distinct. These diseases are hepatitis, type A (infectious), and type B (serum), and two other types referred to as non-A, non-B, and unspecified. It is yet unknown how many types of hepatitis are in the unspecified category. Starting with 1982 data, hepatitis unspecified was classified separately as the fourth type.

Hepatitis, type A, is caused by a virus transmitted principally by the fecal-oral route (often under poor sanitary conditions) and by close contact with infected persons. In 1986, 73 cases of hepatitis, type A, were reported with a case rate of 1.5 per 100,000 population. The trend of the case rates for the years 1977-1986 for hepatitis, type A and type B are shown in Figure 2.

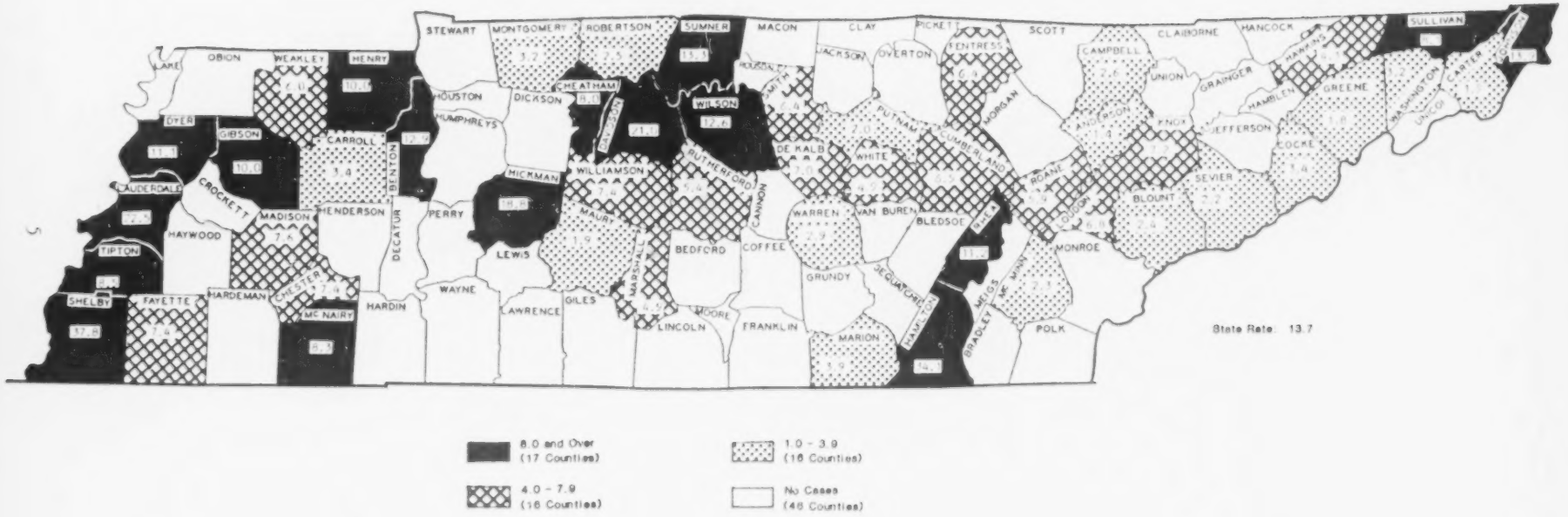
Hepatitis, type B, is caused by a virus distinctive from that associated with hepatitis, type A, and is transmitted principally by parenteral and sexual routes. Exposure to type B is usually through blood transfusion, contaminated needles, or intimate contacts. The incubation period is characteristically long, usually 2 to 6 months. Excluding the sexually transmitted diseases, hepatitis, type B, was the third most commonly reported disease in 1986 with 667 cases reported and a case rate of 13.7 per 100,000 population. Figure 3 shows case rates by county for hepatitis, type B, in 1986.

The distribution of cases of hepatitis, type A and type B, by age group with rates per 100,000 population for 1986 is given in Table 1. The highest attack rate for each type of hepatitis occurred among young adults 20-29 years of age.

TABLE 1. REPORTED CASES OF HEPATITIS, TYPE A AND TYPE B, WITH RATES PER 100,000 POPULATION, BY AGE, TENNESSEE, 1986

	Type A		Type B	
Age Group	Number	Rate	Number	Rate
Total	73	1.5	667	13.7
Under 5 Years	2	0.6	8	2.2
5-9 Years	13	3.6	3	0.8
10-14 Years	3	0.9	3	0.9
15-19 Years	4	1.0	48	12.4
20-24 Years	7	1.8	146	37.4
25-29 Years	10	2.4	143	34.5
30-34 Years	8	2.0	88	21.8
35-44 Years	6	0.9	106	15.8
45-54 Years	7	1.4	46	9.0
55 Years and Over	13	1.3	76	7.5

FIGURE 3. REPORTED CASES OF HEPATITIS, TYPE B, PER 100,000 POPULATION, BY COUNTY, TENNESSEE, 1986



INFLUENZA

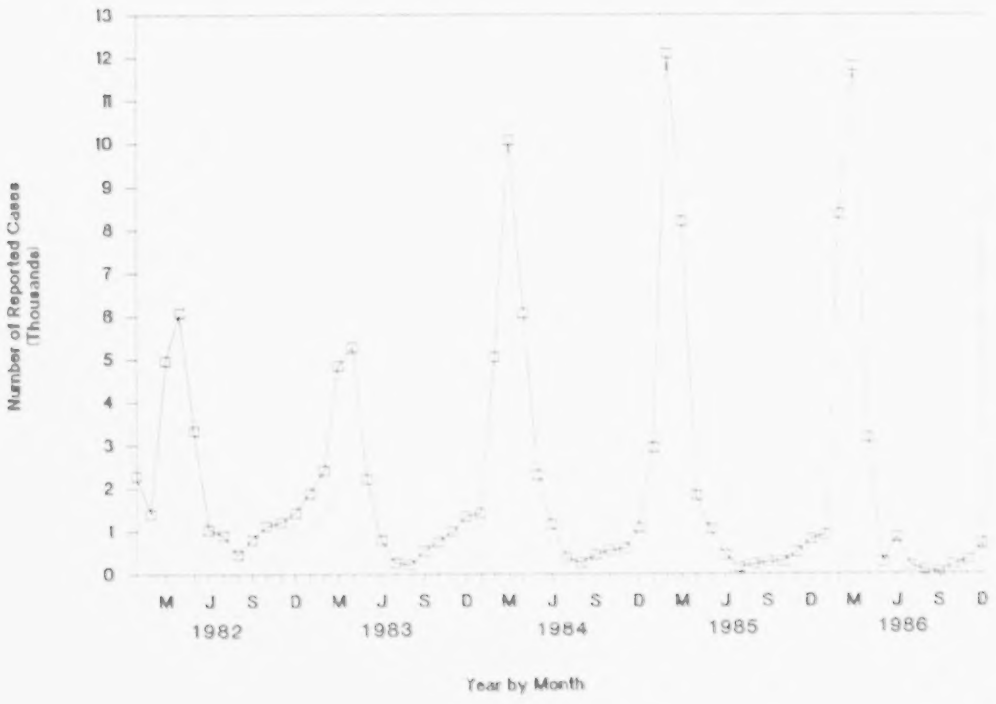
Unlike the other diseases, cases of influenza are reported by numeric total only. During epidemic periods, many illnesses may be reported as influenza that may, in fact, be due to other etiologic agents. Only a small percentage of the total cases reported as influenza have laboratory confirmation.

The number of reported cases of influenza in 1986 was 26,879 corresponding to a decrease of 6.7 percent from the 28,800 cases reported in 1985. Figure 4 shows the fluctuation in the number of cases reported by month for the 5 year period, 1982-1986.

In 1986, of the total number of cases recorded, 94.3 percent were filed within the first 6 months of the year. During the summer, the number of cases declined to a relatively low level and then began to climb gradually in the fall and winter months (Table II).

The geographical distribution of influenza cases was widespread throughout the State: 80 counties reported 1 or more cases; 45 counties reported 100 or more cases; and 8 counties reported 1,000 or more cases. West Tennessee accounted for 31.9 percent of the cases; 35.9 percent were reported from Middle Tennessee; and 32.2 percent, from East Tennessee.

FIGURE 4. REPORTED CASES OF INFLUENZA, BY MONTH FILED, TENNESSEE, 1982-1986



MEASLES

Measles (rubeola) is an acute, highly communicable viral disease frequently complicated by middle ear infection or bronchopneumonia. In the United States, most measles related deaths result from complications including respiratory and neurologic causes, primarily in handicapped children less than 2 years old, and occasionally from encephalitis.

Prior to widespread immunization, over 90.0 percent of the population had been infected by age 20 and few persons went through life without an attack. Measles was endemic in large metropolitan communities, attaining epidemic proportions approximately every other year. In smaller communities and areas, outbreaks tended to be more widely spaced and somewhat more severe. Measles with longer intervals between outbreaks often affected a large proportion of the population with a higher case fatality rate.

With licensure of measles vaccine in 1963, the Childhood Immunization Initiative which began in 1977, and the Measles Elimination Program launched by CDC in 1978, high priority was placed on the elimination of indigenous measles in the United States by October 1982. A record low level of reported measles incidence occurred in 1983 for both Tennessee and the Nation. The major components of the strategy to eliminate measles are achieving and maintaining high immunization levels, surveillance of disease, and prompt outbreak-control measures.

In Tennessee, in the years before the general use of measles vaccine, the incidence of measles followed a cyclical pattern with peaks every 2 to 3 years. The 25,309 cases and case rate of 680.6 per 100,000 population in 1964 was the last high point in the cycle before the introduction of measles vaccine. Outbreaks of the disease still occur, especially among junior high and senior high students. In an effort to prevent these school outbreaks, the Tennessee General Assembly amended the immunization law. Effective July 1, 1978, all children attending school are required to have proof of immunization against measles. As a result of the Measles Elimination Program which began in 1978, the number of reported cases declined to a record low of two cases in 1981 and six cases in 1982.

Between 1983 and 1985, no cases of indigenous measles were reported in Tennessee. However, in 1986, 55 cases occurred in the State. Of these, 43 cases were reported from an outbreak in Henry County.

Measles vaccine is indicated for persons susceptible to measles regardless of age, unless contraindicated. Current evidence indicates that a single dose of measles vaccine at 15 months of age or as soon as possible thereafter provides the greatest immunity. It is particularly important to vaccinate young children at age 15 months or older before they encounter measles in day-care centers or other environments where young children cluster.

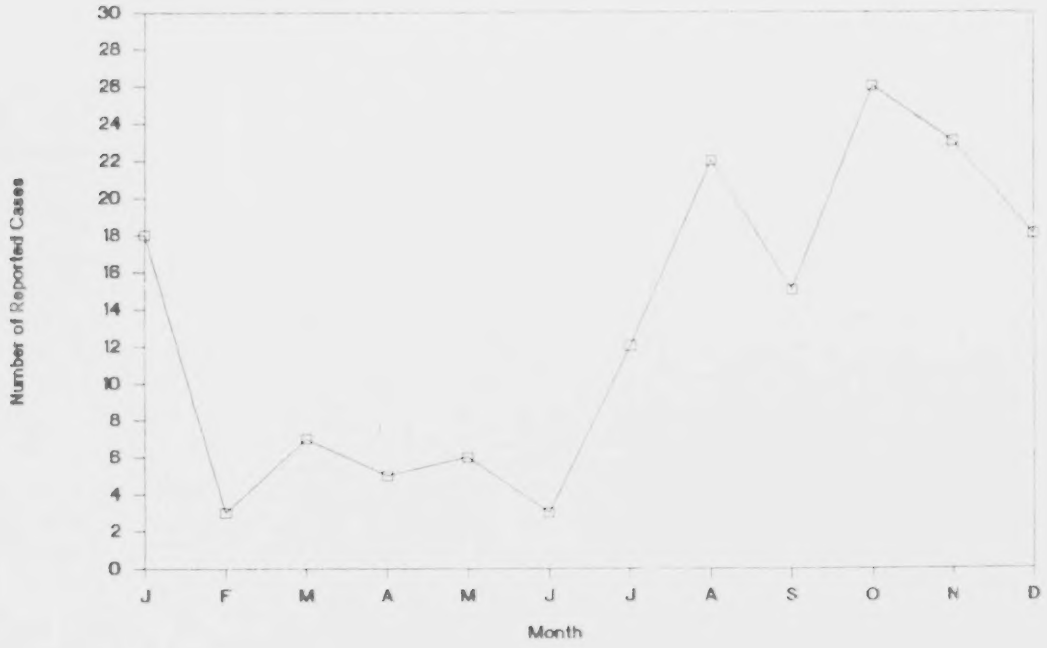
MENINGITIS, ASEPTIC

Aseptic meningitis (viral meningitis) was added to the list of notifiable diseases in 1966. Prior to 1966, only local outbreaks of illnesses characterized as aseptic meningitis were documented in Tennessee statistics. In the past, many illnesses of this type were diagnosed and reported as nonparalytic poliomyelitis; since January 1, 1966, such cases have been categorized as aseptic meningitis for statistical purposes.

There were 158 cases of aseptic meningitis reported in 1986. Although cases were reported from 44 counties, 44.3 percent of these cases were reported from 3 counties (Shelby, 29; Davidson, 25; and Knox, 16).

Reported cases occurred predominantly in July-December, peaking in October (Figure 5). Of the total 158 cases, 41.1 percent occurred in persons less than 15 years of age. For distribution of cases according to age, see Table III.

FIGURE 5. REPORTED CASES OF ASEPTIC MENINGITIS, BY MONTH FILED, TENNESSEE, 1986



MUMPS

During 1986, 32 counties across the State reported cases of mumps with a total of 1,438 cases reported in Tennessee. Major outbreaks occurred in Davidson County with 845 cases reported while Shelby and Lauderdale Counties reported 253 and 220 cases, respectively. The remaining 120 cases were reported from 29 other counties.

In 1968, mumps became a nationally notifiable disease. With the introduction and widespread use of mumps vaccine in 1968, the number of cases in Tennessee has steadily declined from a high of 5,194 in 1971 to low numbers of cases in the period 1980-1985 with only 17 cases reported in 1984. The 1,438 mumps cases in 1986 surpasses the entire 1980-1985 total of 147 mumps cases as shown in Table I.

The majority of mumps cases, 77.0 percent, occurred among students 10-19 years of age. Targeting of immunization to susceptible students was complicated by difficulty of confirming immunization status. Because mumps immunization is not required for school entry or attendance in Tennessee, forms in use at the time students entered school had no provision for recording the information.

Tennessee ranked second in the Nation in the number of mumps cases reported in 1986. The 1,438 mumps cases and rate of 29.6 per 100,000 population in 1986 represents 21.1 percent of United States provisional total of 6,807 reported mumps cases.

ROCKY MOUNTAIN SPOTTED FEVER (RMSF)

Rocky Mountain spotted fever is a disease for which the incidence is higher in the South Atlantic and West South Central states than in other areas of the United States. For 1986, a provisional total of 755 cases of Rocky Mountain spotted fever in the United States was reported to the Centers for Disease Control.

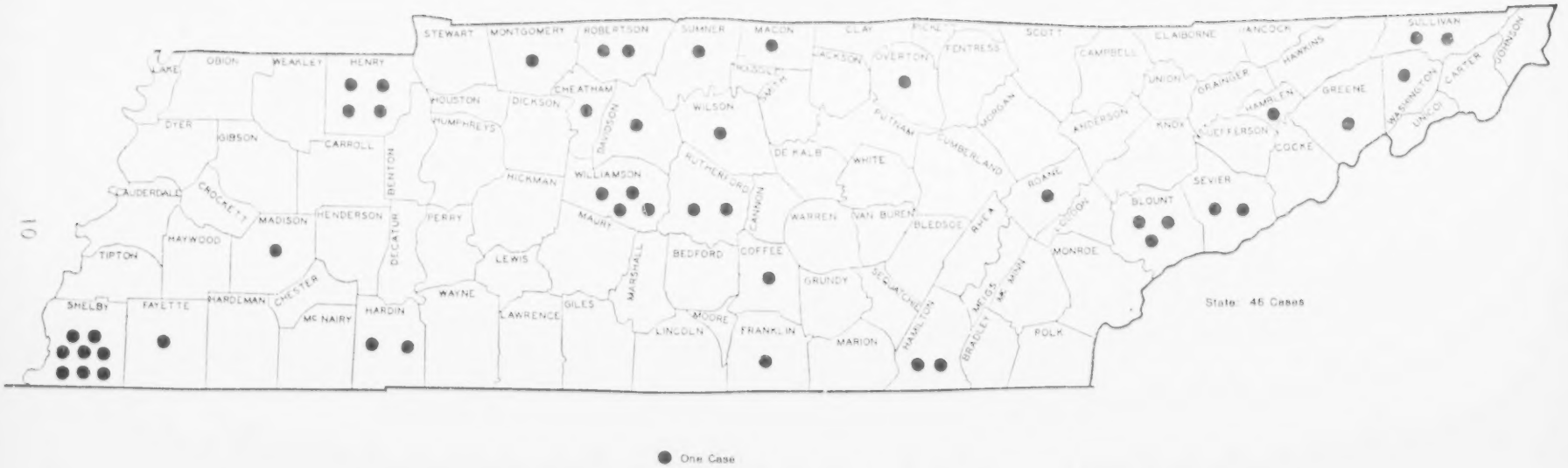
Tennessee ranked fifth highest nationally in 1986 with 46 reported cases of Rocky Mountain spotted fever. Of the 46 cases reported, none were fatal compared with 36 cases and 2 deaths in 1985.

The 46 cases reported in 1986 represented an increase of 27.8 percent over the 36 cases reported in 1985. The case rate of 0.9 per 100,000 population in 1986 was a 28.6 percent increase over the rate of 0.7 reported in the preceding year.

Rocky Mountain spotted fever is transmitted to man by infected ticks and is more prevalent in the spring and summer months. Of the total 46 cases reported in 1986, 36 cases or 78.3 percent were filed from April 1 to September 30. Figure 6, which shows the number of cases of Rocky Mountain spotted fever by county in 1986, indicates the widespread geographic distribution of cases.

The age distribution of the cases reveals that 47.8 percent were persons less than 20 years of age. Of the total 46 cases, 43 cases were in the white race (25 male, 18 female). The remaining three cases were two males and one female in the population of other races.

FIGURE 6. REPORTED CASES OF ROCKY MOUNTAIN SPOTTED FEVER, BY COUNTY, TENNESSEE, 1986



SEXUALLY TRANSMITTED DISEASES (STD)

In 1986, there were 28,188 cases of sexually transmitted diseases reported. These include 26,891 cases of gonorrhea and 1,297 cases of syphilis.

GONORRHEA

In 1986, gonorrhea decreased in both the total number of cases reported and the case rate. There were 26,891 cases of gonorrhea reported in 1986, a decrease of 9.3 percent from the 29,658 cases reported in 1985. The case rate of 553.8 per 100,000 population in 1986 represented a decrease of 10.2 percent from the rate of 616.7 obtained in 1985.

The number of reported cases of gonorrhea decreased 14.0 percent among the white population, with 4,762 cases reported in 1986 compared with 5,539 cases in 1985. For the white population, the case rate of 118.6 in 1986 was a decrease of 14.8 percent from the rate of 139.2 reported in 1985. For the population of other races, the case rate of 2,630.7 per 100,000 population in 1986 represented a decrease of 9.5 percent from the rate of 2,907.3 obtained in 1985. In 1986, the case rate for other races was over 22 times the case rate observed in the white population (Table 2). Such factors as clinic utilization and reporting variation may have influenced these rates.

TABLE 2. REPORTED CASES OF GONORRHEA WITH RATES PER 100,000 POPULATION, BY RACE AND AGE, TENNESSEE, 1986

	All Races		White		All Other Races	
Age Group	Number	Rate	Number	Rate	Number	Rate
Total	26,891#	553.8	4,762#	118.6	22,124#	2630.7
Under 5 Years	23	6.4	3	1.1	20	23.9
5-9 Years	30	8.4	-	-	30	37.9
10-14 Years	404	115.4	45	16.3	359	481.3
15-19 Years	8,185#	2107.3	1,349	435.9	6,835	8659.2
20-24 Years	9,630#	2465.3	1,757	560.8	7,871	10182.3
25-29 Years	4,972#	1200.0	918	273.4	4,053	5162.5
30-34 Years	2,194#	543.7	386	115.7	1,807	2580.7
35-44 Years	1,179	176.1	244	43.0	935	921.9
45-54 Years	179	35.0	36	8.1	143	211.1
55 Years and Over	93	9.2	23	2.6	70	54.0

#Totals may include case/s with age and/or race not stated.

All age specific case rates for other races in 1986 were higher than the corresponding rates among the white population. Persons in the age group 20-24 years experienced the highest case rate, 560.8 for whites and 10,182.3 for other races.

One or more cases of gonorrhea were reported from 88 counties. No other notifiable disease in Tennessee was reported from as many different counties (Table IV).

SYPHILIS

In 1986, there were 624 reported cases of primary and secondary syphilis with a rate of 12.9 per 100,000 population. Both the total number of cases and the case rate decreased (1.1 percent and 1.5 percent, respectively) relative to 1985.

Of the 624 cases of primary and secondary syphilis, 72 were in the white population and 552 were in the population of other races, with corresponding rates of 1.8 and 65.6, respectively. Compared to 1985, the 1986 case rates for the white population and the population of other races decreased 10.0 percent and 1.2 percent, respectively. Case rates by race for 1986 are shown in Table III.

For both racial groups, persons 20-24 years of age experienced the highest incidence of primary and secondary syphilis in 1986. Case rates for the population of other races were higher than those for the white race in each age group. The greatest racial differential was for the age group 30-34 years in which the rate for the population of other races was over 48 times that for the white race (Table 3).

One or more cases of primary and secondary syphilis were reported from 24 counties in Tennessee in 1986 (Table IV). Shelby County in West Tennessee reported 465 cases with a corresponding rate of 56.3. This rate was over 4 times the State rate of 12.9 per 100,000 population. The data are given in detail in Sexually Transmitted Diseases Reported in Tennessee issued by this Department.

TABLE 3. REPORTED CASES OF PRIMARY AND SECONDARY SYPHILIS WITH RATES PER 100,000 POPULATION, BY RACE AND AGE, TENNESSEE, 1986

	All Races		White		All Other Races	
Age Group	Number	Rate	Number	Rate	Number	Rate
Total	624	12.9	72	1.8	552	65.6
Under 5 Years	-	-	-	-	-	-
5-9 Years	-	-	-	-	-	-
10-14 Years	4	1.1	-	-	4	5.4
15-19 Years	88	22.7	9	2.9	79	100.1
20-24 Years	177	45.3	19	6.1	158	204.4
25-29 Years	155	37.4	13	3.9	142	180.9
30-34 Years	100	24.8	9	2.7	91	130.0
35-44 Years	63	9.4	13	2.3	50	49.3
45-54 Years	27	5.3	7	1.6	20	29.5
55 Years and Over	10	1.0	2	0.2	8	6.2

TUBERCULOSIS

In 1986, there were 597 cases of tuberculosis reported in Tennessee, a 4.9 percent increase (28 cases) over the 569 cases in 1985. The tuberculosis case rate of 12.3 per 100,000 population increased 4.2 percent over the rate of 11.8 in 1985. Although the distribution of new cases by race and sex has continued virtually unchanged for the past several years, the disease does not affect all Tennesseans equally. Of the 597 cases in 1986, 66.8 percent were in the white population compared with 33.2 percent in the population of other races. The total case rates in males were higher in both racial groups than for their female counterparts (Table 4).

In 1986, 24 cases or 4.0 percent were reported in persons less than 20 years of age compared with 111 cases or 18.6 percent in the 65-74 age group, and 185 cases or 31.0 percent in persons 75 years and over.

Of the total 597 cases of tuberculosis reported in 1986, there were 507 cases or 84.9 percent classified as pulmonary, and 90 cases or 15.1 percent classified as extrapulmonary. A bacteriological report was received on 98.2 percent of the cases reported. Of the 597 cases, 93.3 percent were positive, 4.9 percent were negative, and the bacteriological report was not done or not available for the other 1.8 percent.

One or more cases of tuberculosis were reported from 84 counties; the highest case rates, 51.1 (4 cases) and 41.6 (4 cases) per 100,000 population, were for Clay and Jackson Counties, respectively.

TABLE 4. REPORTED CASES OF TUBERCULOSIS WITH RATES PER 100,000 POPULATION, BY RACE, SEX, AND AGE, TENNESSEE 1986

	All Races		White				All Other Races			
			Male		Female		Male		Female	
Age Group	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Total	597#	12.3	253#	12.9	146#	7.1	137	34.0	61#	13.9
Under 5 Years	9	2.5	2	1.4	3	2.2	3	7.0	1	2.4
5-9 Years	7	2.0	2	1.4	2	1.5	3	7.4	-	-
10-14 Years	2	0.6	1	0.7	-	-	1	2.6	-	-
15-19 Years	6	1.5	3	1.9	-	-	1	2.5	2	5.1
20-24 Years	14	3.6	2	1.3	4	2.6	5	13.2	3	7.6
25-29 Years	18	4.3	6	3.5	2	1.2	7	18.2	3	7.5
30-34 Years	33	8.2	6	3.6	3	1.8	18	53.2	6	16.6
35-44 Years	67	10.0	18	6.3	7	2.5	27	56.0	15	28.2
45-54 Years	64	12.5	29	13.2	6	2.7	21	67.7	8	21.8
55-64 Years	76	17.6	42	23.6	10	5.0	19	77.6	5	16.2
65-74 Years	111	33.1	65	51.5	28	16.7	9	52.1	9	36.8
75 Years and Over	185	76.5	75	104.9	79	57.3	23	198.4	8	38.3

#Totals may include case/s with age not stated.

TABLE I. REPORTED CASES OF NOTIFIABLE DISEASES,
TENNESSEE, 1977-1986

DISEASE	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL*	126157	120682	65125	61885	136649	61774	56409	63779	61984	58810
BOTULISM	1	-	-	-	-	-	3	2	1	-
BRUCELLOSIS	12	6	15	6	5	9	2	1	1	2
CONGENITAL RUBELLA SYNDROME	2	-	-	-	-	-	-	-	-	-
ENCEPHALITIS, INFECTIOUS	52	31	37	29	88	32	23	20	8	12
ENCEPHALITIS, POST-INFECTIOUS	3	3	1	6	1	1	-	2	-	1
GONORRHEA	35195	31261	31059	29932	31817	32663	30950	30748	29658	26891
HEPATITIS, TYPE A	980	687	532	490	435	346	228	110	81	73
HEPATITIS, TYPE B	533	490	525	467	518	589	697	716	682	667
HEPATITIS, NON-A, NON-B	69	72	92	66	76	77	79	75	55	53
HEPATITIS, UNSPECIFIED	NR	NR	NR	NR	NR	47	55	54	61	54
INFLUENZA	83300	83716	29383	27167	100161	25006	21480	29400	28800	26879
LEPTOSPIROSIS	1	-	1	1	-	-	-	-	2	-
MALARIA	-	-	-	-	-	-	-	3	-	1
MEASLES	769	952	69	170	2	6	-	2	-	55
MENINGITIS, ASEPTIC	117	145	160	114	434	130	153	129	124	158
MENINGOCOCCAL INFECTION	47	58	54	61	71	79	58	52	44	45
MUMPS	684	471	108	33	23	25	30	17	19	1438
PERTUSSIS (WHOOPING COUGH)	56	60	31	37	16	26	8	7	27	18
POLIOMYELITIS, PARALYTIC	-	-	-	-	-	-	-	1	-	-
PSITTACOSIS	-	-	2	-	1	1	-	-	-	-
ROCKY MOUNTAIN SPOTTED FEVER	99	108	75	61	82	59	49	50	36	46
RUBELLA	1790	215	102	41	13	2	-	-	-	-
SALMONELLA INFECTIONS, OTHER	588+	513+	508	546	598	455	521	450	486	474
SHIGELLOSIS	165	225	273	156	208	155	191	164	103	38
SYPHILIS, ALL STAGES	729	817	1334	1698	1307	1305	1215	1168	1217	1297
SYPHILIS, PRIMARY & SECONDARY	253	387	686	926	686	656	588	543	631	624
TETANUS	3	-	-	3	1	1	1	-	1	2
TRICHINIASIS	-	-	-	-	1	1	2	-	-	-
TUBERCULOSIS	864	842	748	791	778	747	645	601	569	507
TULAREMIA	6	4	13	8	8	6	17	4	7	8
TYPHOID FEVER	3	4	2	1	3	5	2	2	2	1
TYPHUS FEVER	-	2	1	1	2	1	-	-	-	-

*TOTAL CASES FOR 1977 INCLUDES CASES OF DISEASES WHICH WERE NOT REPORTABLE IN LATER YEARS.
NR=NOT REPORTABLE. +INCLUDES PARATHYROID FEVER.

TABLE II. REPORTED CASES OF NOTIFIABLE DISEASES,
BY MONTH FILED, TENNESSEE, 1986

DISEASE	TOTAL	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
TOTAL	58810	2928	10832	14778	5418	3049	3221	2440	3353	2385	2515	3215	4676
BRUCELLOSIS	2	-	-	1	-	-	-	1	-	-	-	-	-
ENCEPHALITIS, INFECTIOUS	12	1	-	-	-	2	1	1	1	2	2	1	1
ENCEPHALITIS, POST INFECTIOUS	1	-	-	1	-	-	-	-	-	-	-	-	-
GONORRHEA	26891	1977	2262	2573	1990	2518	2022	2015	2946	2018	2079	2414	2077
HEPATITIS, TYPE A	73	4	4	15	6	5	8	5	8	9	3	3	3
HEPATITIS, TYPE B	667	69	53	74	68	53	44	31	64	46	34	62	69
HEPATITIS, NON-A, NON-B	53	5	4	8	4	6	3	2	4	4	3	4	6
HEPATITIS, UNSPECIFIED	54	1	2	4	5	3	5	10	6	3	5	3	7
INFLUENZA	26879	682	8368	11804	3170	267	837	104	73	43	201	331	921
MALARIA	1	-	-	-	-	-	-	-	1	-	-	-	-
MEASLES	55	-	-	-	1	-	40	14	-	-	-	-	-
MENINGITIS, ASEPTIC	158	8	3	7	5	6	3	12	22	15	26	23	28
MENINGOCOCCAL INFECTION	45	4	7	9	7	6	3	1	2	2	-	1	1
MUMPS	1438	1	1	-	9	3	3	1	1	3	11	120	1285
PERTUSSIS	18	1	1	2	1	-	-	2	10	1	-	-	-
ROCKY MOUNTAIN SPOTTED FEVER	46	-	-	-	1	4	10	7	5	9	6	3	1
SALMONELLA INFECTIONS, OTHER	474	35	18	27	27	29	61	40	54	48	46	63	26
SHIGELLOSIS	38	5	2	4	4	3	2	1	4	2	3	4	4
SYPHILIS, ALL STAGES	1297	118	71	183	87	90	103	83	91	114	70	134	153
SYPHILIS, PRIMARY & SECONDARY	624	60	35	83	42	38	54	36	43	61	32	72	68
TETANUS	2	1	-	-	-	-	-	1	-	-	-	-	-
TUBERCULOSIS	597	16	35	65	33	54	74	29	59	66	25	48	93
TULAREMIA	8	-	1	1	-	-	2	-	1	-	1	1	1
TYPHOID FEVER	1	-	-	-	-	-	-	-	1	-	-	-	-

TABLE III. REPORTED CASES OF SELECTED NOTIFIABLE DISEASES WITH RATES PER 100,000 POPULATION, BY RACE AND AGE, TENNESSEE, 1986

DISEASE			ALL AGES	0-9	10-14	15-19	20-24	25-29	30-34	35-44	45-54	55 AND OVER
BRUCELLOSIS	TOTAL	NUMBER	2	-	-	-	-	-	1	1	-	-
		RATE	0.0	-	-	-	-	-	0.2	0.1	-	-
	WHITE	NUMBER	1	-	-	-	-	-	-	1	-	-
		RATE	0.0	-	-	-	-	-	-	0.2	-	-
	OTHER RACES	NUMBER	1	-	-	-	-	-	1	-	-	-
		RATE	0.1	-	-	-	-	-	1.4	-	-	-
ENCEPHALITIS, INFECTIOUS	TOTAL	NUMBER	12	1	-	-	1	3	1	-	-	6
		RATE	0.2	0.1	-	-	0.3	0.7	0.2	-	-	0.6
	WHITE	NUMBER	11	1	-	-	-	3	1	-	-	6
		RATE	0.3	0.2	-	-	-	0.9	0.3	-	-	0.7
	OTHER RACES	NUMBER	1	-	-	-	1	-	-	-	-	-
		RATE	0.1	-	-	-	1.3	-	-	-	-	-
GONORRHEA	TOTAL	NUMBER #	26891	53	404	8185	9630	4972	2194	1179	179	93
		RATE	553.8	7.4	115.4	2107.3	2465.3	1200.0	543.7	176.1	35.0	9.2
	WHITE	NUMBER	4762	3	45	1349	1757	918	386	244	39	23
		RATE	118.6	0.5	16.3	435.9	560.8	273.4	115.7	43.0	8.1	2.6
	OTHER RACES	NUMBER	22124	50	359	6835	7871	4053	1807	935	143	70
		RATE	2630.7	30.7	481.3	8659.2	10182.3	5162.5	2580.7	921.9	211.1	54.0
HEPATITIS, TYPE A	TOTAL	NUMBER	73	15	3	4	7	10	8	6	7	13
		RATE	1.5	2.1	0.9	1.0	1.8	2.4	2.0	0.9	1.4	1.3
	WHITE	NUMBER	64	14	3	4	6	8	6	4	6	11
		RATE	1.6	2.5	1.1	1.3	1.9	2.4	2.4	0.7	1.4	1.2
	OTHER RACES	NUMBER	9	1	-	-	1	2	-	2	1	2
		RATE	1.1	0.6	-	-	1.3	2.5	-	2.0	1.5	1.5
HEPATITIS, TYPE B	TOTAL	NUMBER	667	11	3	48	146	143	88	106	46	76
		RATE	13.7	1.5	0.9	12.4	37.4	34.5	21.8	15.8	9.0	7.5
	WHITE	NUMBER	366	6	1	24	81	74	48	60	31	41
		RATE	9.1	1.1	0.4	7.8	25.9	22.0	14.4	10.6	7.0	4.7
	OTHER RACES	NUMBER	301	5	2	24	65	69	40	46	15	35
		RATE	35.8	3.1	2.7	30.4	84.1	87.9	57.1	45.4	22.1	27.0
HEPATITIS, NON-A, NON-B	TOTAL	NUMBER	53	2	-	4	5	9	9	8	3	13
		RATE	1.1	0.3	-	1.0	1.3	2.2	2.2	1.2	0.6	1.3
	WHITE	NUMBER	47	2	-	3	5	7	8	8	3	11
		RATE	1.2	0.4	-	1.0	1.6	2.1	2.4	1.4	0.7	1.2
	OTHER RACES	NUMBER	6	-	-	1	-	2	1	-	-	2
		RATE	0.7	-	-	1.3	-	2.5	1.4	-	-	1.5
HEPATITIS, UNSPECIFIED	TOTAL	NUMBER	54	11	6	3	6	4	7	7	4	6
		RATE	1.1	1.5	1.7	0.8	1.5	1.0	1.7	1.0	0.8	0.6
	WHITE	NUMBER	48	11	6	3	6	3	6	4	3	6
		RATE	1.2	2.0	2.2	1.0	1.9	0.9	1.8	0.7	0.7	0.7
	OTHER RACES	NUMBER	6	-	-	-	-	1	1	3	1	-
		RATE	0.7	-	-	-	-	1.3	1.4	3.0	1.5	-

#TOTALS MAY INCLUDE CASE/S WITH AGE AND/OR RACE NOT STATED.

TABLE III.(CONTINUED) REPORTED CASES OF SELECTED NOTIFIABLE DISEASES WITH RATES PER 100,000 POPULATION, BY RACE AND AGE, TENNESSEE, 1986

DISEASE			ALL AGES	0-9	10-14	15-19	20-24	25-29	30-34	35-44	45-54	55 AND OVER
MALARIA	TOTAL	NUMBER	1	-	-	-	-	1	-	-	-	-
		RATE	0.0	-	-	-	-	0.2	-	-	-	-
	WHITE	NUMBER	-	-	-	-	-	-	-	-	-	-
		RATE	-	-	-	-	-	-	-	-	-	-
	OTHER RACES	NUMBER	1	-	-	-	-	1	-	-	-	-
		RATE	0.1	-	-	-	-	1.3	-	-	-	-
MEASLES	TOTAL	NUMBER #	55	6	12	32	3	-	1	1	-	-
		RATE	1.1	0.8	3.4	8.2	0.8	-	0.2	0.1	-	-
	WHITE	NUMBER	47	4	11	27	3	-	1	1	-	-
		RATE	1.2	0.7	4.0	8.7	1.0	-	0.3	0.2	-	-
	OTHER RACES	NUMBER	7	1	1	5	-	-	-	-	-	-
		RATE	0.8	0.6	1.3	6.3	-	-	-	-	-	-
MENINGITIS, ASEPTIC	TOTAL	NUMBER	158	55	10	11	19	21	21	9	5	7
		RATE	3.3	7.7	2.9	2.8	4.9	5.1	5.2	1.3	1.0	0.7
	WHITE	NUMBER	132	47	6	10	15	17	17	8	5	7
		RATE	3.3	8.5	2.2	3.7	4.8	5.1	5.1	1.4	1.1	0.8
	OTHER RACES	NUMBER	26	8	4	1	4	4	4	1	-	-
		RATE	3.1	4.9	5.4	1.3	5.2	5.1	5.7	1.0	-	-
MENINGOCOCCAL, INFECTION	TOTAL	NUMBER	45	28	1	3	3	3	-	3	1	3
		RATE	0.9	3.9	0.3	0.8	0.8	0.7	-	0.4	0.2	0.3
	WHITE	NUMBER	23	16	1	2	2	1	-	3	1	2
		RATE	0.7	2.9	0.4	0.6	0.6	0.3	-	0.5	0.2	0.2
	OTHER RACES	NUMBER	17	12	-	1	1	2	-	-	-	1
		RATE	2.0	7.4	-	1.3	1.3	2.5	-	-	-	0.8
MUMPS	TOTAL	NUMBER #	1438	142	597	520	17	10	10	16	4	3
		RATE	29.6	19.8	167.6	133.9	4.4	2.4	2.5	2.4	0.8	0.3
	WHITE	NUMBER	253	33	77	113	8	5	3	9	2	3
		RATE	6.3	6.0	27.9	36.5	2.6	1.5	0.9	1.6	0.5	0.3
	OTHER RACES	NUMBER	505	35	179	270	6	3	6	6	-	-
		RATE	60.0	21.5	240.0	342.1	7.8	3.8	8.6	5.9	-	-
PERTUSSIS (WHOOPING COUGH)	TOTAL	NUMBER	18	17	1	-	-	-	-	-	-	-
		RATE	0.4	2.4	0.3	-	-	-	-	-	-	-
	WHITE	NUMBER	15	14	1	-	-	-	-	-	-	-
		RATE	0.4	2.5	0.4	-	-	-	-	-	-	-
	OTHER RACES	NUMBER	3	3	-	-	-	-	-	-	-	-
		RATE	0.4	1.8	-	-	-	-	-	-	-	-
ROCKY MOUNTAIN SPOTTED FEVER	TOTAL	NUMBER	46	10	5	7	4	1	6	4	1	8
		RATE	0.9	1.4	1.4	1.8	1.0	0.2	1.5	0.6	0.2	0.8
	WHITE	NUMBER	43	10	5	7	4	1	3	4	1	8
		RATE	1.1	1.8	1.8	2.3	1.3	0.3	0.9	0.7	0.2	0.9
	OTHER RACES	NUMBER	3	-	-	-	-	-	3	-	-	-
		RATE	0.4	-	-	-	-	-	4.3	-	-	-

#TOTALS MAY INCLUDE CASE/S WITH AGE AND/OR RACE NOT STATED.

TABLE III.(CONTINUED) REPORTED CASES OF SELECTED NOTIFIABLE DISEASES WITH RATES PER 100,000 POPULATION, BY RACE AND AGE, TENNESSEE, 1986

DISEASE			ALL AGES	0-9	10-14	15-19	20-24	25-29	30-34	35-44	45-54	55 AND OVER
SALMONELLA INFECTIONS,OTHER	TOTAL	NUMBER	474	210	16	13	20	31	24	38	28	94
		RATE	9.8	29.3	4.6	3.3	5.1	7.5	5.9	5.7	5.5	9.3
	WHITE	NUMBER	318	109	15	6	17	22	18	31	19	81
		RATE	7.9	19.7	5.4	1.9	5.4	6.6	5.4	5.5	4.3	9.2
	OTHER RACES	NUMBER	156	101	1	7	3	9	6	7	9	13
		RATE	18.5	62.0	1.3	8.9	3.9	11.5	8.6	6.9	13.3	10.0
SHIGELLOSIS	TOTAL	NUMBER	38	14	2	1	6	5	4	3	1	2
		RATE	0.8	2.0	0.6	0.3	1.5	1.2	1.0	0.4	0.2	0.2
	WHITE	NUMBER	20	4	-	1	6	2	4	2	-	1
		RATE	0.5	0.7	-	0.3	1.9	0.6	1.2	0.4	-	0.1
	OTHER RACES	NUMBER	18	10	2	-	-	3	-	1	1	1
		RATE	2.1	6.1	2.7	-	-	3.8	-	1.0	1.5	0.8
SYPHILIS, ALL STAGES	TOTAL	NUMBER	1297	6	6	163	355	335	212	135	54	31
		RATE	26.7	0.8	1.7	42.0	90.9	80.9	52.5	20.2	10.6	3.1
	WHITE	NUMBER	156	-	-	14	40	35	28	22	12	5
		RATE	3.9	-	-	4.5	12.8	10.4	8.4	3.9	2.7	0.6
	OTHER RACES	NUMBER	1141	6	6	149	315	300	184	113	42	26
		RATE	135.7	3.7	8.0	188.8	407.5	382.1	262.8	111.4	62.0	20.1
SYPHILIS, PRIMARY & SECONDARY	TOTAL	NUMBER	624	-	4	88	177	155	100	63	27	10
		RATE	12.9	-	1.1	22.7	45.3	37.4	24.8	9.4	5.3	1.0
	WHITE	NUMBER	72	-	-	9	19	13	9	13	7	2
		RATE	1.8	-	-	2.9	6.1	3.9	2.7	2.3	1.6	0.2
	OTHER RACES	NUMBER	552	-	4	79	158	142	91	50	20	8
		RATE	65.6	-	5.4	100.1	204.4	180.9	130.0	49.3	29.5	6.2
TUBERCULOSIS	TOTAL	NUMBER #	597	16	2	6	14	18	33	67	64	372
		RATE	12.3	2.2	0.6	1.5	3.6	4.3	8.2	10.0	12.5	36.8
	WHITE	NUMBER	399	9	1	3	6	8	9	25	35	299
		RATE	9.9	1.6	0.4	1.0	1.9	2.4	2.7	4.4	7.9	33.9
	OTHER RACES	NUMBER	198	7	1	3	8	10	24	42	29	73
		RATE	23.5	4.3	1.3	3.8	10.3	12.7	34.3	41.4	42.8	56.3
TULAREMIA	TOTAL	NUMBER	8	-	-	1	2	-	1	-	-	4
		RATE	0.2	-	-	0.3	0.5	-	0.3	-	-	0.4
	WHITE	NUMBER	7	-	-	1	2	-	-	-	-	4
		RATE	0.2	-	-	0.3	0.6	-	-	-	-	0.5
	OTHER RACES	NUMBER	1	-	-	-	-	-	1	-	-	-
		RATE	0.1	-	-	-	-	-	1.4	-	-	-
TYPHOID FEVER	TOTAL	NUMBER	1	-	-	-	-	-	-	1	-	-
		RATE	0.0	-	-	-	-	-	-	0.1	-	-
	WHITE	NUMBER	-	-	-	-	-	-	-	-	-	-
		RATE	-	-	-	-	-	-	-	-	-	-
	OTHER RACES	NUMBER	1	-	-	-	-	-	-	1	-	-
		RATE	0.1	-	-	-	-	-	-	1.0	-	-

#TOTALS MAY INCLUDE CASE/S WITH AGE AND/OR RACE NOT STATED.

TABLE IV. REPORTED CASES OF NOTIFIABLE DISEASES FOR COUNTIES OF TENNESSEE, 1986

COUNTY	BRUCELLOSIS	ENCEPHALITIS, INFECTIOUS	ENCEPHALITIS, POST INFECTIOUS	GONORRHEA	HEPATITIS, TYPE A	COUNTY	BRUCELLOSIS	ENCEPHALITIS, INFECTIOUS	ENCEPHALITIS, POST INFECTIOUS	GONORRHEA	HEPATITIS, TYPE A
STATE TOTAL	2	12	1	26891	73	LAKE	-	-	-	39	-
						LAUDERDALE	-	-	-	208	-
ANDERSON	-	-	-	68	-	LAWRENCE	-	-	-	7	-
BEDFORD	-	-	-	63	-	LEWIS	-	-	-	-	-
BENTON	-	-	-	6	-	LINCOLN	-	-	-	7	-
BLEDSOE	-	-	-	1	-	LOUDON	-	-	-	6	-
BLOUNT	-	-	1	114	-	MCMINN	-	-	-	60	1
BRADLEY	-	-	-	149	-	MCNAIRY	-	-	-	39	1
CAMPBELL	-	-	-	25	1	MACON	-	-	-	9	-
CANNON	-	-	-	1	-	MADISON	-	-	-	1147	-
CARROLL	-	-	-	19	-	MARION	-	-	-	4	1
CARTER	-	-	-	52	-	MARSHALL	-	-	-	24	-
CHEATHAM	-	-	-	4	-	MAURY	-	-	-	158	-
CHESTER	-	-	-	47	-	MEIGS	-	-	-	2	-
CLAIBORNE	-	-	-	6	13	MONROE	-	-	-	45	-
CLAY	-	-	-	12	-	MONTGOMERY	-	-	-	260	-
COCKE	-	-	-	32	-	MOORE	-	-	-	2	-
COFFEE	-	-	-	6	1	MORGAN	-	-	-	6	2
CROCKETT	-	-	-	-	-	OBION	-	-	-	85	-
CUMBERLAND	-	-	-	28	-	OVERTON	-	-	-	6	-
DAVIDSON	2	2	-	4942	8	PERRY	-	-	-	-	-
DECATUR	-	-	-	20	-	PICKETT	-	-	-	1	-
DEKALB	-	-	-	2	-	POLK	-	-	-	-	-
DICKSON	-	-	-	16	-	PUTNAM	-	-	-	70	-
DYER	-	-	-	244	-	RHEA	-	-	-	7	-
FAYETTE	-	-	-	178	-	ROANE	-	-	-	37	-
FENTRESS	-	-	-	5	1	ROBERTSON	-	-	-	53	-
FRANKLIN	-	-	-	21	-	RUTHERFORD	-	1	-	291	-
GIBSON	-	1	-	178	1	SCOTT	-	-	-	2	-
GILES	-	-	-	39	-	SEQUATCHIE	-	1	-	-	1
GRAINGER	-	-	-	3	1	SEVIER	-	-	-	33	1
GREENE	-	-	-	48	1	SHELBY	-	1	-	11758	7
GRUNDY	-	-	-	1	-	MILLINGTON NAVAL	-	-	-	1	-
HAMBLEN	-	-	-	114	-	SMITH	-	-	-	1	-
HAMILTON	-	1	-	2722	4	STEWART	-	-	-	2	-
HANCOCK	-	-	-	1	-	SULLIVAN	-	1	-	242	1
HARDEMAN	-	-	-	187	-	SUMNER	-	-	-	128	1
HARDIN	-	-	-	36	-	TIPTON	-	-	-	169	1
HAWKINS	-	-	-	16	-	TROUSDALE	-	-	-	2	-
HAYWOOD	-	-	-	191	-	UNICOI	-	-	-	10	1
HENDERSON	-	-	-	34	-	UNION	-	-	-	6	-
HENRY	-	-	-	11	-	VAN BUREN	-	-	-	2	-
HICKMAN	-	-	-	2	1	WARREN	-	-	-	21	-
HOUSTON	-	-	-	-	-	WASHINGTON	-	-	-	155	1
HUMPHREYS	-	-	-	4	-	WAYNE	-	1	-	-	-
JACKSON	-	-	-	2	1	WEAKLEY	-	-	-	38	-
JEFFERSON	-	-	-	25	-	WHITE	-	1	-	10	1
JOHNSON	-	-	-	19	-	WILLIAMSON	-	1	-	100	8
KNOX	-	1	-	1854	12	WILSON	-	-	-	90	-

TABLE IV. (CONTINUED) REPORTED CASES OF NOTIFIABLE DISEASES
FOR COUNTIES OF TENNESSEE, 1986

COUNTY	HEPATITIS, TYPE B	HEPATITIS, NON-A, NON-B	HEPATITIS, UNSPECIFIED	INFLUENZA	MALARIA	COUNTY	HEPATITIS, TYPE B	HEPATITIS, NON-A, NON-B	HEPATITIS, UNSPECIFIED	INFLUENZA	MALARIA
STATE TOTAL	667	53	54	26879	1	LAKE	-	-	-	-	-
						LAUDERDALE	6	-	2	144	-
ANDERSON	1	-	-	140	-	LAWRENCE	-	-	-	29	-
BEDFORD	-	-	-	-	-	LEWIS	-	-	-	2676	-
BENTON	2	1	-	744	-	LINCOLN	-	1	1	504	-
BLEDSOE	-	-	-	19	-	LOUDON	2	-	1	-	-
BLOUNT	2	-	1	528	-	MCMINN	1	1	-	77	-
BRADLEY	-	-	-	32	-	MCNAIRY	2	-	-	575	-
CAMPBELL	1	-	-	211	-	MACON	-	-	-	5	-
CANNON	-	-	-	25	-	MADISON	6	2	-	1375	-
CARROLL	1	-	-	43	-	MARION	1	-	-	120	-
CARTER	1	-	-	473	-	MARSHALL	1	-	-	145	-
CHEATHAM	2	1	-	183	-	MAURY	1	1	-	28	-
CHESTER	1	-	-	369	-	MEIGS	-	-	-	-	-
CLAIBORNE	-	-	17	58	-	MONROE	-	-	-	340	-
CLAY	-	-	-	-	-	MONTGOMERY	3	1	1	65	-
COCKE	1	-	-	34	-	MOORE	-	-	-	3	-
COFFEE	-	1	-	173	-	MORGAN	-	-	-	51	-
CROCKETT	-	-	-	5	-	OBION	-	-	-	420	-
CUMBERLAND	2	-	-	157	-	OVERTON	-	-	-	50	-
DAVIDSON	104	7	-	1782	1	PERRY	-	-	-	4	-
DECATUR	-	-	-	-	-	PICKETT	-	-	-	208	-
DEKALB	1	-	-	-	-	POLK	-	-	-	-	-
DICKSON	-	-	-	162	-	PUTNAM	1	-	-	22	-
DYER	4	2	-	519	-	RHEA	3	-	2	56	-
FAYETTE	2	-	-	-	-	ROANE	3	2	-	157	-
FENTRESS	1	-	-	-	-	ROBERTSON	1	-	-	10	-
FRANKLIN	-	-	-	8	-	RUTHERFORD	5	1	1	1136	-
GIBSON	5	-	3	971	-	SCOTT	-	-	-	-	-
GILES	-	1	-	112	-	SEQUATCHIE	-	-	1	79	-
GRAINGER	-	-	-	-	-	SEVIER	1	-	-	347	-
GREENE	1	1	-	616	-	SHELBY	312	16	7	1079	-
GRUNDY	-	-	-	5	-	MILLINGTON NAVAL	-	-	-	-	-
HAMBLEN	-	-	-	44	-	SMITH	1	-	-	36	-
HAMILTON	103	3	3	1157	-	STEWART	-	-	-	-	-
HANCOCK	-	-	-	130	-	SULLIVAN	12	1	1	1185	-
HARDEMAN	-	-	-	6	-	SUMNER	13	1	7	979	-
HARDIN	-	-	1	851	-	TIPTON	3	-	-	21	-
HAWKINS	2	-	-	141	-	TROUSDALE	-	-	-	3	-
HAYWOOD	-	-	-	378	-	UNICOI	-	-	-	-	-
HENDERSON	-	-	-	59	-	UNION	-	-	-	9	-
HENRY	3	-	-	891	-	VAN BUREN	-	-	-	-	-
HICKMAN	3	-	-	78	-	WARREN	1	1	1	52	-
HOUSTON	-	-	-	101	-	WASHINGTON	3	-	1	250	-
HUMPHREYS	-	-	-	8	-	WAYNE	-	-	-	102	-
JACKSON	-	-	-	14	-	WEAKLEY	2	-	-	120	-
JEFFERSON	-	-	-	72	-	WHITE	1	-	-	1	-
JOHNSON	2	1	-	966	-	WILLIAMSON	5	-	-	643	-
KNOX	24	7	-	1279	-	WILSON	8	-	3	229	-

TABLE IV. (CONTINUED) REPORTED CASES OF NOTIFIABLE DISEASES
FOR COUNTIES OF TENNESSEE, 1986

COUNTY	MEASLES	MENINGITIS, ASEPTIC	MENINGOCOCCAL INFECTIONS	MUMPS	PERTUSSIS	COUNTY	MEASLES	MENINGITIS, ASEPTIC	MENINGOCOCCAL INFECTIONS	MUMPS	PERTUSSIS
STATE TOTAL	55	158	45	1438	18	LAKE	-	-	-	-	-
						LAUDERDALE	-	-	1	220	-
ANDERSON	-	3	-	-	1	LAWRENCE	-	-	-	-	-
BEDFORD	-	1	-	1	-	LEWIS	-	-	-	-	-
BENTON	2	-	1	-	-	LINCOLN	-	-	1	-	-
BLEDSOE	-	-	-	-	-	[illegible]	-	4	-	-	-
BLOUNT	-	-	1	-	-	[illegible]	-			-	-
BRADLEY	-	-	-	1	1	[illegible]	-	1		1	-
CAMPBELL	-	1	-	5	-	[illegible]	-	-	-	-	-
CANNON	-	-	-	-	-	MADISON	-	1	1	1	-
CARROLL	2	2	-	-	-	MARION	-	1	1	-	-
CARTER	-	1	-	-	-	[illegible]	-	-	-	-	-
CHEATHAM	-	2	-	-	-	[illegible]	-	-	-	-	3
CHESTER	-	-	-	-	1	[illegible]	-	1	-	1	-
CLAIBORNE	-	1	-	-	-	[illegible]	-	1	-	-	-
CLAY	-	-	-	-	-	MONTGOMERY	-	-	-	-	-
COCKE	-	-	-	2	-	MOORE	-	-	-	-	-
COFFEE	-	1	-	1	-	[illegible]	-	1	-	-	-
CROCKETT	-	-	-	-	-	OBION	1	-	-	22	-
CUMBERLAND	-	-	-	1	-	[illegible]	-	-	-	-	-
DAVIDSON	-	25	7	845	5	[illegible]	-	-	-	-	-
DECATUR	-	-	-	1	-	[illegible]	-	-		-	-
DEKALB	-	-	-	-	-	[illegible]	-	-	-	-	-
DICKSON	-	-	-	-	-	PUTNAM	-	-	-	-	-
DYER	-	3	1	1	-	RHEA	1	-	-	-	-
FAYETTE	-	1	-	4	-	[illegible]	-	-	-	-	-
FENTRESS	-	-	-	-	-	ROBERTSON	-	3	-	-	-
FRANKLIN	-	1	1	-	1	RUTHERFORD	2	3	-	3	-
GIBSON	-	2	-	-	-	SCOTT	-	1	-	-	-
GILES	-	-	-	-	-	[illegible]	-	-	1	-	-
GRAINGER	-	1	-	-	-	[illegible]	-	3	-	-	-
GREENE	-	3	1	1	-	SHELBY	1	29	9	253	2
GRUNDY	-	-	-	2	-	MILLINGTON NAVAL	-	-	-	-	-
HAMBLEN	1	1	3	-	-	SMITH	-	2	1	-	1
HAMILTON	-	4	4	2	2	STEWART	-	-	-	-	-
HANCOCK	-	-	-	-	-	SULLIVAN	-	7	5	3	1
HARDEMAN	-	-	-	22	-	SUMNER	-	11	-	4	-
HARDIN	-	-	-	-	-	TIPTON	-	3	2	23	-
HAWKINS	-	2	-	-	-	TROUSDALE	-	-	-	-	-
HAYWOOD	-	-	-	3	-	UNICOI	-	1	-	-	-
HENDERSON	-	-	-	-	-	UNION	-	1	-	-	-
HENRY	43	-	-	-	-	VAN BUREN	-	-	-	-	-
HICKMAN	-	1	-	1	-	WARREN	-	-	-	-	-
HOUSTON	-	-	-	-	-	WASHINGTON	-	3	-	1	-
HUMPHREYS	-	-	-	-	-	WAYNE	-	-	-	-	-
JACKSON	-	-	-	-	-	WEAKLEY	-	-	-	1	-
JEFFERSON	-	1	-	-	-	WHITE	-	1	-	1	-
JOHNSON	-	1	-	-	-	WILLIAMSON	-	5	1	2	-
KNOX	-	16	3	8	-	WILSON	2	1	-	1	-

TABLE IV. (CONTINUED) REPORTED CASES OF NOTIFIABLE DISEASES
FOR COUNTIES OF TENNESSEE, 1986

COUNTY	ROCKY MOUNTAIN SPOTTED FEVER	SALMONELLA INFECTIONS, OTHER	SHIGELLOSIS	SYPHILIS, ALL STAGES	SYPHILIS, PRIMARY & SECONDARY	COUNTY	ROCKY MOUNTAIN SPOTTED FEVER	SALMONELLA INFECTIONS, OTHER	SHIGELLOSIS	SYPHILIS, ALL STAGES	SYPHILIS, PRIMARY & SECONDARY
STATE TOTAL	46	474	38	1297	624	LAKE	-	-	-	6	5
						LAUDERDALE	-	1	-	1	-
ANDERSON	-	9	-	1	-	LAWRENCE	-	-	-	-	-
BEDFORD	-	-	-	1	1	LEWIS	-	-	-	-	-
BENTON	-	-	-	-	-	LINCOLN	-	1	-	-	-
BLEDSOE	-	-	-	-	-	LOUDON	-	6	-	2	1
BLOUNT	3	4	-	3	-	MCMINN	-	1	-	-	-
BRADLEY	-	2	-	1	-	MCNAIRY	-	-	-	-	-
CAMPBELL	-	-	-	-	-	MACON	1	1	-	1	1
CANNON	-	-	-	-	-	MADISON	1	20	-	12	8
CARROLL	-	-	-	3	1	MARION	-	1	-	-	-
CARTER	-	-	-	1	1	MARSHALL	-	-	-	-	-
CHEATHAM	1	1	-	-	-	MAURY	-	-	-	2	2
CHESTER	-	-	-	1	-	MEIGS	-	-	-	-	-
CLAIBORNE	-	-	-	-	-	MONROE	-	1	-	1	1
CLAY	-	-	-	-	-	MONTGOMERY	1	4	-	5	-
COCKE	-	5	-	6	3	MOORE	-	-	-	-	-
COFFEE	1	-	-	1	-	MORGAN	-	-	-	-	-
CROCKETT	-	1	-	1	-	OBION	-	1	-	2	-
CUMBERLAND	-	5	-	-	-	OVERTON	1	-	-	1	1
DAVIDSON	1	27	11	122	52	PERRY	-	-	-	-	-
DECATUR	-	1	-	-	-	PICKETT	-	-	-	-	-
DEKALB	-	-	-	-	-	POLK	-	-	-	-	-
DICKSON	-	1	-	-	-	PUTNAM	-	-	-	3	-
DYER	-	6	-	-	-	RHEA	-	-	-	-	-
FAYETTE	1	5	-	3	-	ROANE	1	5	-	1	-
FENTRESS	-	1	-	-	-	ROBERTSON	2	5	1	1	-
FRANKLIN	1	1	-	-	-	RUTHERFORD	2	2	-	1	-
GIBSON	-	2	-	2	-	SCOTT	-	1	-	-	-
GILES	-	3	-	2	-	SEQUATCHIE	-	-	-	-	-
GRAINGER	-	-	-	1	1	SEVIER	2	7	-	1	1
GREENE	1	9	-	1	-	SHELBY	8	142	18	947	465
GRUNDY	-	1	-	-	-	MILLINGTON NAVAL	-	-	-	2	-
HAMBLEN	1	-	-	2	-	SMITH	-	-	-	-	-
HAMILTON	2	63	2	25	8	STEWART	-	1	-	-	-
HANCOCK	-	1	-	-	-	SULLIVAN	2	16	-	2	2
HARDEMAN	-	1	-	1	-	SUMNER	1	5	-	1	-
HARDIN	2	2	-	4	4	TIPTON	-	1	-	9	7
HAWKINS	-	2	-	1	-	TROUSDALE	-	-	-	-	-
HAYWOOD	-	-	-	27	17	UNICOI	-	-	-	-	-
HENDERSON	-	-	-	4	-	UNION	-	-	-	-	-
HENRY	4	2	-	12	6	VAN BUREN	-	-	-	-	-
HICKMAN	-	1	-	5	1	WARREN	-	1	-	-	-
HOUSTON	-	-	-	-	-	WASHINGTON	1	11	-	1	1
HUMPHREYS	-	-	-	1	-	WAYNE	-	1	-	-	-
JACKSON	-	1	-	-	-	WEAKLEY	-	1	-	-	-
JEFFERSON	-	-	-	-	-	WHITE	-	-	-	-	-
JOHNSON	-	1	-	-	-	WILLIAMSON	4	2	-	-	-
KNOX	-	73	5	62	34	WILSON	1	5	1	1	-

TABLE IV. (CONTINUED) REPORTED CASES OF NOTIFIABLE DISEASES
FOR COUNTIES OF TENNESSEE, 1986

COUNTY	TETANUS	TUBERCULOSIS	TULAREMIA	TYPHOID FEVER	COUNTY	TETANUS	TUBERCULOSIS	TULAREMIA	TYPHOID FEVER
STATE TOTAL	2	597	8	1	LAKE	-	-	-	-
					LAUDERDALE	-	1	-	-
ANDERSON	-	7	-	-	LAWRENCE	-	5	-	-
BEDFORD	-	2	-	-	LEWIS	-	1	-	-
BENTON	-	-	-	-	LINCOLN	-	7	-	-
BLEDSOE	-	1	-	-	LOUDON	-	5	-	-
BLOUNT	-	4	-	-	MCMINN	-	5	-	-
BRADLEY	-	7	-	-	MCNAIRY	-	-	-	-
CAMPBELL	-	5	-	-	MACON	-	5	-	-
CANNON	-	3	-	-	MADISON	-	5	-	-
CARROLL	-	2	-	-	MARION	-	2	-	-
CARTER	-	1	-	-	MARSHALL	-	1	-	-
CHEATHAM	-	3	-	-	MAURY	-	8	-	-
CHESTER	-	1	-	-	MEIGS	-	-	-	-
CLAIBORNE	-	6	-	-	MONROE	-	4	-	-
CLAY	-	4	-	-	MONTGOMERY	-	8	-	-
COCKE	-	8	-	-	MOORE	-	2	-	-
COFFEE	-	2	-	-	MORGAN	-	4	-	-
CROCKETT	-	-	-	-	OBION	-	3	-	-
CUMBERLAND	-	5	-	-	OVERTON	-	7	-	-
DAVIDSON	1	69	2	-	PERRY	-	2	-	-
DECATUR	-	3	-	-	PICKETT	-	-	-	-
DEKALB	-	2	-	-	POLK	-	2	-	-
DICKSON	-	1	-	-	PUTNAM	-	11	-	-
DYER	-	3	-	-	RHEA	-	1	-	-
FAYETTE	-	4	-	-	ROANE	-	5	-	-
FENTRESS	-	-	-	-	ROBERTSON	-	2	1	-
FRANKLIN	-	3	-	-	RUTHERFORD	-	1	2	-
GIBSON	-	7	-	-	SCOTT	-	3	-	-
GILES	-	7	-	-	SEQUATCHIE	-	-	-	-
GRAINGER	-	1	-	-	SEVIER	-	9	-	-
GREENE	-	13	-	-	SHELBY	-	108	2	-
GRUNDY	-	1	-	-	MILLINGTON NAVAL	-	-	-	-
HAMBLEN	-	7	-	-	SMITH	-	4	-	-
HAMILTON	1	43	-	-	STEWART	-	3	-	-
HANCOCK	-	2	-	-	SULLIVAN	-	14	-	-
HARDEMAN	-	2	-	-	SUMNER	-	7	-	-
HARDIN	-	1	-	-	TIPTON	-	3	-	-
HAWKINS	-	6	-	-	TROUSDALE	-	-	-	1
HAYWOOD	-	4	-	-	UNICOI	-	1	-	-
HENDERSON	-	4	-	-	UNION	-	2	-	-
HENRY	-	5	-	-	VAN BUREN	-	-	-	-
HICKMAN	-	3	-	-	WARREN	-	6	-	-
HOUSTON	-	1	-	-	WASHINGTON	-	8	-	-
HUMPHREYS	-	3	-	-	WAYNE	-	5	-	-
JACKSON	-	4	-	-	WEAKLEY	-	1	-	-
JEFFERSON	-	6	-	-	WHITE	-	1	-	-
JOHNSON	-	-	-	-	WILLIAMSON	-	2	-	-
KNOX	-	45	1	-	WILSON	-	12	-	-

TABLE V. REPORTED CASES AND DEATHS FROM SELECTED NOTIFIABLE DISEASES
REGIONAL DATA, TENNESSEE, [illegible]

DISEASE	1984		1985		[illegible]	
	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS
TOTAL	63778	111	[illegible]	144	[illegible]	136
BOTULISM	2	-	1	-	-	-
BRUCELLOSIS	1	-	1	-	1	-
CONGENITAL RUBELLA SYNDROME	-	-	-	-	-	-
ENCEPHALITIS, INFECTIOUS	20	-	8	-	12	-
ENCEPHALITIS, POST-INFECTIOUS	2	-	-	-	1	-
GONORRHEA	30748	-	[illegible]	-	[illegible]	-
HEPATITIS, TYPE A	110	-	61	-	73	-
HEPATITIS, TYPE B	716	15	710	18	687	10
HEPATITIS, NON-A, NON-B	75	3	79	9	53	8
HEPATITIS, UNSPECIFIED	54	10	61	9	54	11
INFLUENZA	29400	23	[illegible]	46	26879	39
LEPTOSPIROSIS	-	-	2	-	-	-
MALARIA	3	-	-	-	1	-
MEASLES	2	-	-	-	55	-
MENINGITIS, ASEPTIC	129	2	124	1	158	-
MENINGOCOCCAL INFECTION	52	6	44	6	45	7
MUMPS	17	-	17	-	1436	-
PERTUSSIS (WHOOPING COUGH)	7	-	17	-	18	-
POLIOMYELITIS, PARALYTIC	1	-	-	-	-	-
PSITTACOSIS	-	-	-	-	-	-
ROCKY MOUNTAIN SPOTTED FEVER	50	1	5	2	46	-
RUBELLA	-	-	-	-	-	-
SALMONELLA INFECTIONS, OTHER	450	3	456	2	474	2
SHIGELLOSIS	164	-	103	1	38	-
SYPHILIS, ALL STAGES	1168	1	[illegible]	1	1297	1
SYPHILIS, PRIMARY & SECONDARY	543	-	611	-	624	-
TETANUS	-	-	1	-	2	-
TRICHINIASIS	-	-	-	-	-	-
TUBERCULOSIS	611	46	[illegible]	49	597	58
TULAREMIA	-	-	1	-	3	-
TYPHOID FEVER	2	-	1	-	1	-
TYPHUS FEVER	-	-	-	-	-	-

APPENDICES

APPENDIX A
DEFINITIONS OF TERMS

Population - The population estimates for counties in Tennessee are shown in Appendix B and are used in the calculation of 1986 rates shown in this report. They were prepared by the Department of Sociology, University of Tennessee.

Race - The terms "white" and "all other races" are used to denote the racial groups. Definitions used for classifying race are those specified by the Bureau of the Census.

Rates A morbidity rate is the number of reported cases of a disease per 100,000 population. Rates are rounded to one decimal place for publication.

$$\text{Disease rate} = \frac{\text{Number of reported cases}}{\text{Population of area}} \times 100{,}000$$

In comparing rates for different population groups or time periods, one should keep in mind the limitations of population estimates and probable variations in underreporting. Rates based on small frequencies also should be interpreted with caution since sampling error may be large.

Report Period - Frequency counts in this report are based on communicable diseases reported during the calendar year 1986. Thus, counts include cases with 1985 onset dates which were reported in 1986 and exclude cases with 1986 onset dates which were reported after January 3, 1987.

Residence Allocation - The cases of reportable diseases tabulated for Tennessee are allocated to the place of residence. When usual place of residence is not clear, or when cases are diagnosed among foreign Nationals, the cases are allocated to the place of diagnosis.

APPENDIX B
POPULATION ESTIMATES BY RACE AND SEX AND BY COUNTY
AND RACE, TENNESSEE, 1986

County	Population			County	Population		
	All Races	White	All Other Races		All Races	White	All Other Races
Tennessee	4,855,651	4,014,667	840,984				
Male	2,364,626	1,961,294	403,332				
Female	2,491,025	2,053,373	437,652				
Anderson	69,694	65,885	3,809	Lauderdale	26,619	17,866	8,753
Bedford	28,991	25,690	3,301	Lawrence	35,711	35,089	622
Benton	15,507	15,110	397	Lewis	10,973	10,762	211
Bledsoe	10,044	9,736	308	Lincoln	27,131	24,262	2,869
Blount	81,882	78,755	3,127	Loudon	29,609	29,111	498
Bradley	73,443	70,006	3,437	McMinn	43,880	41,404	2,476
Campbell	37,949	37,653	296	McNairy	23,980	22,272	1,708
Cannon	10,619	10,411	208	Macon	16,800	16,736	64
Carroll	29,040	25,552	3,488	Madison	78,797	54,064	24,733
Carter	52,044	51,459	585	Marion	25,534	24,401	1,133
Cheatham	24,859	24,230	629	Marshall	20,438	18,289	2,149
Chester	13,489	12,016	1,473	Maury	54,045	44,721	9,324
Claiborne	26,197	25,800	397	Meigs	8,137	8,020	117
Clay	7,833	7,708	125	Monroe	30,396	29,433	963
Cocke	29,670	28,956	714	Montgomery	93,229	73,977	19,252
Coffee	40,320	38,570	1,750	Moore	4,871	4,711	160
Crockett	15,146	12,097	3,049	Morgan	17,622	17,505	117
Cumberland	30,945	30,945	-	Obion	33,789	30,156	3,633
Davidson	494,431	371,004	123,427	Overton	18,202	18,118	84
Decatur	11,210	10,697	513	Perry	6,322	6,158	164
DeKalb	14,280	13,963	317	Pickett	4,592	4,592	-
Dickson	32,734	30,858	1,876	Polk	14,198	14,198	-
Dyer	36,178	31,684	4,494	Putnam	50,772	49,433	1,339
Fayette	27,129	13,734	13,395	Rhea	26,711	25,918	793
Fentress	15,506	15,506	-	Roane	51,266	49,501	1,765
Franklin	33,476	30,915	2,561	Robertson	40,293	34,772	5,521
Gibson	50,056	39,815	10,241	Rutherford	92,946	82,947	9,999
Giles	25,741	22,073	3,668	Scott	20,857	20,857	-
Grainger	17,539	17,401	138	Sequatchie	9,161	9,113	48
Greene	56,373	54,626	1,747	Sevier	45,815	45,486	329
Grundy	14,885	14,885	-	Shelby	826,155	448,547	377,608
Hamblen	52,540	49,783	2,757	Smith	15,678	15,084	594
Hamilton	302,431	237,697	64,734	Stewart	8,947	8,796	151
Hancock	6,983	6,957	26	Sullivan	147,652	144,319	3,333
Hardeman	25,079	15,372	9,707	Sumner	97,741	91,626	6,115
Hardin	23,447	22,409	1,038	Tipton	35,243	25,668	9,575
Hawkins	46,707	45,741	966	Trousdale	6,527	5,613	914
Haywood	21,430	10,199	11,231	Unicoi	16,481	16,481	-
Henderson	22,706	20,672	2,034	Union	12,606	12,606	-
Henry	29,948	26,563	3,385	Van Buren	5,097	5,097	-
Hickman	15,949	15,068	881	Warren	34,675	33,352	1,323
Houston	7,149	6,817	332	Washington	92,567	88,842	3,725
Humphreys	16,725	15,990	735	Wayne	14,384	14,219	165
Jackson	9,626	9,626	-	Weakley	33,438	31,196	2,242
Jefferson	32,858	31,791	1,067	White	20,274	19,774	500
Johnson	14,356	14,239	117	Williamson	67,555	61,741	5,814
Knox	331,933	297,507	34,426	Wilson	63,419	57,724	5,695
Lake	7,439	5,939	1,500				

Population estimates based on the 1980 Census were produced by the Department of Sociology at the University of Tennessee in Knoxville using the cohort component method.